MEDICAL WORLD NEWS

MARCH 31, 1961

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MEDICAL WORLD NEWS

THE NEWSMAGAZINE OF MEDICINE

MARCH 31, 1961

CONTENTS

On the cover: First patient undergoes operation with pneumatic tourniquet, which allows perfusion of anti-cancer drugs into pelvis without systemic leakage. Story on p. 18

Departments

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LATE NEWS

SCRUBBING, NOT SOAP, MAKES MD's HANDS COME CLEAN

It's the scrubbing, not the soap, that rids the doctor's hands of transient microbes, says Dr. Robert F. Cavitt of Kansas City. In fact, simple washing with antiseptic soaps between examinations or dressing changes "is of little benefit in removing these organisms" and may give physicians and nurses "a false sense of security."

Dr. Cavitt, a surgical resident at the University of Kansas Medical Center, bases his conclusions on experiments with ordinary toilet soap and two types of detergents containing the antiseptic, hexachlorophene. For test purposes he contaminated his hands with a harmless organism that produces bright red cultures. Then he washed them—without scrubbing—for one minute in each of a series of basins.

Cultures from the first six basins showed the characteristic red plaques of the test organism; the seventh basin was apparently "clean." But when a scrubbing brush was brought into play, it dislodged a whole "new crop" of the organism—regardless of whether soap or detergent had been used.

By contrast, he says, scrubbing—even with plain water—yielded test organisms in only four basins; the fifth was clean.

Substitution of antiseptic soaps for scrubbing may be less abrasive to the hands, says Dr. Cavitt, but "increases the risk of nosocomial infection to the patient."

EXTERNAL MASSAGE REVERSES CARDIAC ARREST

Closed chest cardiac massage has been applied in 114 cases of "sudden death" among 94 patients at Johns Hopkins Hospital. In 62 per cent of the attempts, resuscitation was successful. Ages of the patients ranged from under a week to 82 years.

The report of the external cardiac massage study was presented at the annual clinical meeting of the Chicago Medical Society by Dr. William B. Kouwenhoven of Johns Hopkins.

In closed chest cardiac massage the heart is compressed by the following method:

1. Patient supine on firm surface, such as floor.

2. Operator positions himself at right angles to the patient's trunk. He places both hands one above the other on the patient's sternum. The heel of the lower hand rests on the lower third of the sternum just above the xiphoid.

3. Using his body weight, the operator presses down vertically, depressing the sternum. This compresses the heart and forces blood into systemic circulation. Release of pressure allows the heart to refill.

4. Rhythm of pressure and release is at the rate of one per second.

5. If a second operator is present, he should apply mouth-to-mouth artificial respiration. The two techniques need not be synchronized. If there is only one operator present, the patient's lungs should be ventilated by half-a-dozen quick breaths. This should be alternated with heart massage for 30-40 seconds.

Greatest success at Johns Hopkins with the method has been in the operating and recovery rooms in non-cardiac surgery patients: 96 per cent.

QUICK-FREEZING KEEPS BLOOD CELLS ALIVE FOR 3 YEARS

A new method of preserving blood in the frozen state allows more than 70 per cent of red cells to remain viable for as long as three years.

A father and son team, Drs. Max and Paul Strumia of the University of Pennsylvania, have described to the American College of Surgeons their technique of quick-freezing blood in a solution of lactose and dextrose.

This solution binds water more efficiently than glycerol, one of the substances widely used in frozen-blood experiments. Thus, when the cells are frozen, smaller crystals form, and damage to the erythrocytes is reduced. Sugars can then be separated from the blood by centrifugation.

Such frozen blood, rapidly thawed, then tagged with chromium and transfused into human volunteers, has shown a survival of almost three-fourths of red cells for 24 hours after transfusion. This, the Pennsylvania pathologists point out, "begins to approach the volume of red cells now considered normal in regular transfusions of fresh whole blood."

STUBBORN TB CASES ARE VICTIMS OF VARIANTS

Bacterial variations that cause drug-resistant, long-term pulmonary infections are the newest antagonists under attack in public health efforts to eradicate tuberculosis.

Until six years ago, any differences between Mycobacterium tuberculosis cultures grown in the laboratory were ascribed to environmental conditions. Then it was found that the variations were broader than was thought possible. Eventually, four groups of variants were noted: photochromogenic, scotochromogenic, Battey and fast growing atypical strains.

Five years ago, the Suburban Cook County Tuberculosis Sanitarium District Hospital at Hinsdale, Ill., began studying patients who gave positive tuberculin tests, whose disease was resistant to treatment with streptomycin, isoniazid and para-amino-salicylic acid, and whose lab cultures showed infection by a variant.

Reporting on the study, Dr. Edward A. Piszczek, director of the Hins-

dale Hospital, summarizes:

Of a total of 80 patients, 10 had Battey, the rest photochromogens. Three adjoining suburbs of Chicago had 38 of the cases in the five-year period. This is the highest concentration ever found. In none of the 80 were there multiple cases in the same family. Highest incidence was at ages 40-59, in white males. Although moderately advanced typical tuberculosis cases stay an average of 167.2 days at the sanitarium, photochromogen patients stayed 211.7 days and Battey patients 353.

Because these organisms are so new that it takes a well-staffed laboratory to pinpoint them, Dr. Piszczek says "we should treat these cases just as we treat pulmonary infections caused by typical organisms."

ALLERGEN IN PURE FORM ISOLATED BY CHROMATOGRAPHY

For the first time, scientists have pushed beyond crude extracts to identify a simple chemical compound as the cause of an allergy.

The chemical, chlorogenic acid, has been shown to be the active agent which caused allergies among coffee workers in Montreal, Canada. It also is suspected as the primary allergen in oranges and apples.

Drs. Samuel O. Freedman and A. H. Schon of McGill University, investigating allergies among coffee workers in Montreal, quickly identified raw coffee chaff as the causative substance. Breaking this down by chromatography, they obtained 45 fractions. Eleven proved to be allergenic in passive tranfer reaction studies. These were subjected to tests for phenolic compounds, which are known for their ability to impart antigenicity to many compounds. They were present to a significant degree.

A systematic evalution of known polyphenolic compounds in coffee pointed to chlorogenic acid.

The acid was tested against serum obtained from individuals allergic to raw coffee. A test dose of only 1:400,000 microgram was sufficient to evoke a response. Allergic workers also had strongly positive skin tests.

In vivo cross-neutralization studies showed that chlorogenic acid neutralized antibodies directed against coffee chaff, oranges and apples. The investigators say "these results would suggest that it may be the allergen in the raw coffee bean, apple or orange."

If a simple chemical could be identified as the allergen, it could lead to more effective desensitizing agents.

NEW ELECTRICAL TECHNIQUE 'MAPS' NERVOUS TISSUE

Damage to the heart's pacemaker system, with resultant heart block, is an ever-present risk in many types of cardiac surgery. Many unsuccessful attempts have been made to locate the bundle of His so as to avoid this complication. A new electrical technique for "mapping" nervous tissue has succeeded, thus opening ways to minimize this hazard.

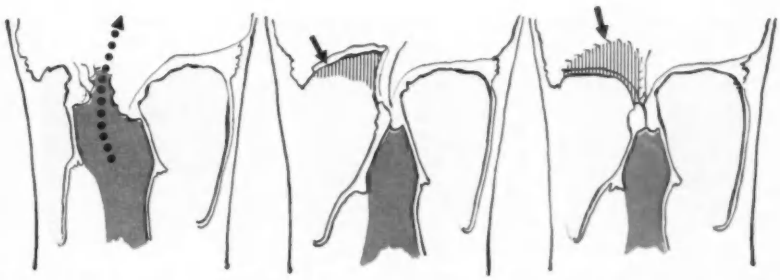
Dr. Derward Lepley, Jr., of Marquette University, has told the Society of University Surgeons that in animal experiments he has located the atrioventricular node and the bundle of His within one millimeter. Dr. Lepley's method will soon be tried clinically.

The technique is based on differences in electrical impedance—something like resistance—between nerve and muscle tissue.

The Marquette investigator passes a weak (about .001 watt), high-frequency current through the heart, then moves a fine probe across the organ's surface. When the probe crosses a region of decreased impedance, an oscillator emits a signal.

Dr. Lepley notes that the method can be used on the arrested heart, apparently without ill effects.

MITRAL VALVE 'PATCHED' WITH PERICARDIAL TISSUE



BACKFLOW through mitral valve is stopped by slitting shrunken leaflet (center). Gap is filled with pericardial graft (r.) which allows leaflet edges to meet normally.

Repair work on the valves of the heart has been hampered by the difficulty of finding a material tough enough to withstand 40 million flexings a year for the life of the patient. Plastics tend to wear out; rigid substitute valves often adapt poorly to the living, moving organ.

A Seattle surgeon, Dr. Lester R. Sauvage, has turned to the heart itself as a successful source of autograft material. After ten years of animal experiments, he reports the use of pericardial tissue in repairing the mitral valve of a 52-year-old woman.

Dr. Sauvage's finding stemmed from a search for autogenous graft material which can take up nourishment from the surrounding blood stream. Studies with dogs showed that pericardial tissue fills the bill.

His first patient suffered from massive mitral insufficiency, apparently from a childhood attack of rheumatic fever. Diagnosticians estimated that two-thirds of the blood pumped was leaking backward through the valve; they gave her a life expectancy without surgery, of less than a year.

Dr. Sauvage performed the open-heart operation in Providence Hospital, Seattle. He found the edges of both valve leaflets stiffened and shortened; the mural leaflet was badly shrunken.

The repair job began with a five cm incision in the mural leaflet; this allowed advancement of the leaflet edge to meet the opposite leaflet. The hole was then patched with small pericardial graft.

Two months after the operation, says Dr. Sauvage, the patient appears in good condition. Her heart murmur has vanished and her prospects for a normal life are "excellent."

OUTLOOK

- New York State launches aid to aged program
- First big study of diabetic complications begins

In July, South Dakota will become the second state to have a "Good Samaritan" law on the books. Like the law now in effect in California, it stipulates that any physician who "in good faith" renders medical care at the scene of an emergency is relieved of liability for civil damages.

Dentists in Minnesota will begin taking routine oral smears of patients. The purpose: to determine if exfoliative cytology is valuable in early detection of cancers of the mouth. The two-year study will be conducted in a rural area, in metropolitan St. Paul and in the University of Minnesota School of Dentistry and University hospitals.

New York State will launch a $40 million program making use of Kerr-Mills machinery ("Outlook," Feb. 17). The newly-enacted legislation, backed by Gov. Rockefeller, will provide medical assistance for about 175,000 of the State's over-65 population. Thus New York becomes the fifth state—with Kentucky, Massachusetts, Michigan and Oklahoma—to take advantage of the AMA-approved law.

Brave new (gastronomic) world department: At least two big companies soon will begin marketing meals-in-a-glass. Edward Dalton Co., a division of Mead Johnson & Co., has introduced a liquid concentrate called "Nutrament." And General Foods is testing a powdered product, "Brim," which, when mixed with milk, is said to provide a "tasty and delicious breakfast." These so-called convenience foods will compete with the powdered and liquid-diet foods that now account for a sales volume of $100 million annually.

The first benefit concert for the American Medical Education Foundation will be presented in New York's Carnegie Hall during the June convention of the AMA. The sponsoring Woman's Auxiliary of the Medical Society of the State of New York has promised that a world-famed instrumentalist will appear with the 75-piece Doctors' Orchestral Society of New York. Physicians' contributions to the AMEF concert, say the organizers, will be tax-deductible.

The Dartmouth convocation on great issues of conscience in modern medicine (MWN, Oct. 7, '60) will get widespread TV exposure. Videotaped proceedings of the September sessions are being distributed to fifty educational television stations around the country. First of the three 90-minute programs will be shown by the stations starting April 23.

Seven research centers are now in the pilot stage of a 10-year project—the first "large-scale, carefully controlled, long-term study of the natural history of diabetes." The National Institute of Arthritis and Metabolic Diseases, which is helping to support the study, says the "elaborate program" will examine incidence and severity of late diabetic complications and determine if they are in any way affected by several therapeutic measures, including three antidiabetic drugs now in use (tolbutamide, chlorpropamide and phenformin).

Despite influenza epidemics in Great Britain and in Japan, the Public Health Service says there's no need for fear in the U. S. The Surgeon General's office is keeping tabs on the problem areas abroad. And state health departments here show flu rates are "well within" the normal limits.

MEETINGS

Apr.	10-13	Southwest Surgical Congress, St. Louis
Apr.	10-12	American Academy of Pediatrics, Wash., D.C.
Apr.	10-15	Federation of Amer. Societies for Experimental Biology, Atlantic City
Apr.	16-20	American Society of Maxillofacial Surgeons, New York City
Apr.	17-20	American Academy of General Practice, Miami Beach
Apr.	20-28	American College of Obstetricians & Gynecologists, Bal Harbour, Fla.
Apr.	21-23	American Society for the Study of Sterility, Miami Beach
Apr.	22-25	Texas Medical Association, Galveston
Apr.	23-27	Society of American Bacteriologists, Chicago
Apr.	24-26	American Association for Thoracic Surgery, Philadelphia
Apr.	24-26	Int'l Academy of Pathology, Chicago
Apr.	24-29	American Academy of Neurology, Detroit

UPCOMING

June	25-30	AMA—Annual Meeting, New York City
July	1-4	Int'l College of Surgeons, Regional, Cape Cod
Aug.	14-19	Int'l Congress on Mental Retardation, Vienna

MEDICAL WORLD NEWS

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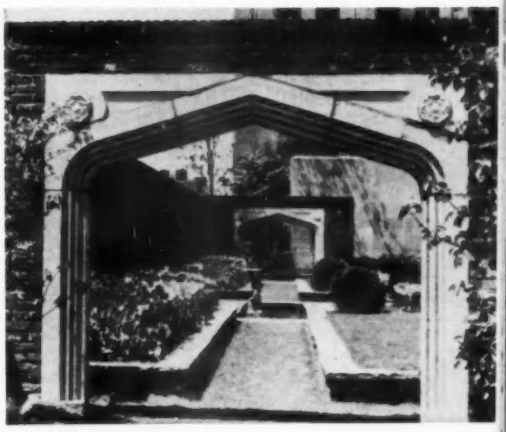
A LETTER FROM THE PUBLISHER

After more than a year in temporary quarters, we're at last settled permanently at 30 Rockefeller Plaza West, on the top floor of the RCA Building's west wing.

When we approached the management of Rockefeller Center last year, they were generous enough to find temporary space for us while we conferred with architects and designers to create a suitable living space for our editorial and business departments. Now, after many months of tearing down walls, installing a central air-conditioning system, choosing colors, picking furniture, we're happily settled in our new home which overlooks the beautiful Terrace Gardens, 11 stories above street level.

Many of the offices in Rockefeller Center, as you know, are national showplaces for some of the great companies of America, firms like Standard Oil of New Jersey, American Cyanamid, Eastern Airlines, Bristol Myers, General Dynamics and many others.

We haven't made any effort to compete with these firms in style or magnificence, but instead have tried to create modest living quarters which would be both comfortable and functional. Our primary aim was to design an office which would enable us to receive and process the news faster and more efficiently so that we can deliver a constantly improved publication to the American physician.



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In choosing Rockefeller Center as our permanent home, we were well aware of its position as one of the world's great communications centers. Located here are RCA, NBC, the Associated Press, Time-Life, Simon & Schuster . . . and now MEDICAL WORLD NEWS.

Come June, when many of you will be in New York for the AMA's annual roundup, make a special note to drop in to see us at 30 Rockefeller Plaza West. The welcome mat will be out for you on the 16th floor.

M M Geffen

Publisher

MEDICAL WORLD NEWS
March 31, 1961 Vol. 2, No. 7

EXPERTS PROBE LAG IN CARE OF MENTALLY ILL

A massive, five-year study by select commission blames professionals and the public and urges billion-dollar budgets for sweeping reforms

It is not the symptoms of mental illness that send a patient to a mental hospital—but that people can no longer stand his behavior.

And once in the hospital—especially if it is state run—the patient's care may be largely punitive and custodial, not therapeutic.

With these blunt comments, a blue-ribbon commission of 44 psychiatrists and physicians points up the dreary picture they unearthed in a $1,500,000 five-year study of "the lag in mental health care."

Mental illness, the commission finds, is commonly regarded as America's number one health problem. But it is way down on the list in terms of money, manpower and public concern. It takes second place in spending at the National Institutes of Health—which appointed the commission. It is eighth in line among the voluntary fund campaigns. Press surveys show that despite repeated "snakepit" exposés, mental illness has relatively low reader impact. State institutions spend an average of $4.44 per patient per day compared to $31.16 for general care in community hospitals.

Members of the Joint Commission on Mental Health, calling their 100,000-word report to Congress "realistic" and sometimes "pessimistic," spread the blame evenly among the public, the Government, the medical profession and psychiatric workers. Their recommendations range from new programs of public education to a request for Federal intervention. But their main target is the state hospitals—that "have no defenders but endure despite all attacks." Here, the commission says flatly, "is the core problem and unfinished business of mental health.

"One of the most revealing findings of our mental health study is that comparatively few of our 277 state hospitals—probably no more than 20 per cent of them—have participated in innovations designed to make them therapeutic, as contrasted to custodial, institutions.

"Eight of every ten mental hospital patients are in state institutions. These hospitals carry a daily load of more than 540,000 patients and look after a million in a year's time.

Patterns of Rejection

"Our information leads us to believe that more than half of these patients receive no active treatment of any kind designed to improve their mental condition."

All this, the commission finds, reflects a pattern of social rejection that has not been greatly helped by public education campaigns. Nobody, not even the doctor, loves the severely mentally ill. The family wants to be relieved of his prickly presence. The general practitioner neither understands him nor is sympathetic to him. The psychiatrist prefers to handle the neurotic, easily treated patient. And finally, according to the study group, the superintendent of the state hospital and his staff may share the public's stigmatizing attitude toward the mental patient.

These attitudes are somewhat understandable, the commission admits. Unlike other sick people, the mentally ill do not reach out pathetically for help; nor, when they receive it, do they always reward the helper with gratitude. Other sick people evoke sympathy; the mentally ill repel it.

Thus, the commission underscores, education is on the wrong track.

Public education has failed because it has not helped the public to recognize that the mentally ill are not appealing. If it is to succeed, it must do this so that people can deal "openly and consciously" with the problem of rejection, and rise above merely self-preservative functions.

In an intensive study of the manpower problem, the commission also finds a great shortage of mental health workers, which is related to the shortage of professional manpower in general—teachers, physicians, scientists.

"With frank pessimism," the commission concludes that sufficient personnel to eliminate "glaring deficiencies" will never be available unless there is a great change in social attitudes and a "massive national effort" in all areas of education—or unless there is a sharp breakthrough in mental health research.

As for research, the commission says:

"The enormous task of taking care of mental patients is matched by the enormous research lag in the study of human behavior. The Federal Government's policies determine the shape, size, direction and soundness of the over-all effort" in mental health research, and the Government currently favors short-term applied research, rather than the long-term basic approach that is essential.

What can be done to reduce this staggering list of debits? The commission offers some answers. It realistically gives No. 1 priority to money.

Federal, state and local expenditures for public mental patient services should be doubled in the next five years—and tripled in the next ten, it says. A progressive matching of Federal and state funds should be set up on a ratio of one to ten the first year, one to two after five years and one to one after ten years.

To give an idea of the kind of money the commission has in mind, the National Institutes of Health has a $100 million budget this year for mental health. Within ten years, the commission estimates, local, state and Federal governments should spend three billion annually.

Since legislators probably feel they've already moved as fast as public demand will permit, the commission recommends that something be done to press lawmakers into action. Congress, it says, should *immediately* appoint a committee of consultants who will work out ways to implement the recommended program and suggest enabling legislation.

In its recommendations, the commission again hits hard at the problem of local and state hospital care.

"The mental hospital needs to be integrated into the community. This means keeping in closer touch with all the community's public and private service agencies—so that the backward, custodial system can't thrive and the hospital's shortcomings may come to attention.

"The state hospitals must cease to be treated as a target for political exploitation. Patronage must end.

"These hospitals and their community extensions—clinics and aftercare programs—must be manned by properly motivated career workers and not by hacks, professional or lay. These workers need to be well trained and well paid."

Smaller Hospitals Converted

In fact, the commission says, no new state hospitals of 1,000 beds or more should be built at all, and the present smaller hospitals should be rapidly converted into intensive treatment centers for major mental illness cases. All new state hospital buildings should be of this latter type. And community general hospitals must accept mental patients for short-term hospitalization, thereby providing a psychiatric unit or psychiatric beds.

Among other recommendations:

- The Federal Government should enact tax laws permitting deductions for higher education costs.
- A community mental health clinic should eventually be provided for each 50,000 population.
- A national manpower recruitment and training program should be initiated to stimulate the interest of American youth in mental health work as a career. A President's prize —or two, at $50,000 each—should be created for outstanding scientific or educational contributions to mental health.
- Support should be provided for resident training programs in pediatrics that incorporate psychiatric information.

What is the next step?

"The matter is now out of our hands," says Dr. Ralph Kaufman, head of psychiatry at New York's Mt. Sinai Hospital and a member of the commission. "But we hope to start a brushfire, not just get mere crumbs from our recommendations."

Sen. Lister Hill (D-Ala.) and Rep. John Fogarty (D-R.I.), who initiated the Mental Health Study Act of 1955, are expected to recommend prompt action, but it is by no means certain that any will be taken this year. Yet vastly increased sums of money are essential to the commission's program. Says Dr. Jack Ewalt, executive director of the commission: "Without adequate financial resources, we cannot take care of patients, we cannot educate professional personnel for public service, and we cannot pursue the basic knowledge needed for the prevention and cure of mental illness." ■

HOW STATES COMPARE IN CARE OF THE MENTALLY ILL
(AS OF 1958)

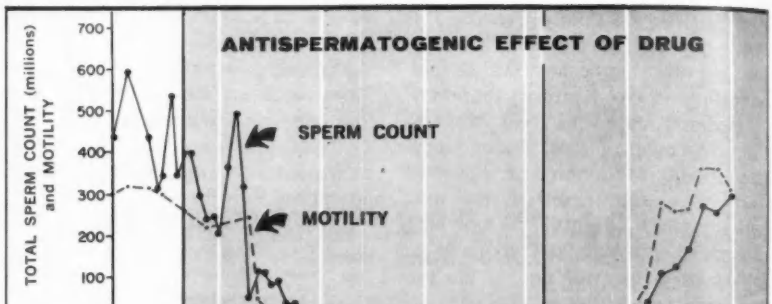
STATE	Patients per 100,000 pop.	Professional personnel per 100 patients	Psychiatrists per 100,000 pop.	Daily expenditure per patient
Alabama	230.4	1.2	1.4	$2.46
Arizona	143.4	3.0	3.2	4.24
Arkansas	281.6	2.6	3.2	3.37
California	260.6	4.0	9.0	5.08
Colorado	347.3	3.6	6.4	4.72
Connecticut	376.9	6.4	12.2	5.80
Delaware	395.1	4.0	5.5	4.72
Dist. of Col.	866.3	5.6	27.8	6.17
Florida	200.1	2.2	3.6	3.29
Georgia	313.4	1.4	1.9	2.62
Idaho	164.0	4.5	2.3	4.47
Illinois	375.0	2.9	5.4	3.66
Indiana	241.8	4.0	2.9	4.45
Iowa	176.1	5.0	2.7	4.28
Kansas	202.7	8.0	10.3	6.15
Kentucky	238.9	3.3	2.7	2.99
Louisiana	269.0	1.8	4.0	2.76
Maine	317.1	2.8	3.4	3.77
Maryland	320.6	3.4	12.3	4.47
Massachusetts	453.4	5.2	11.9	4.80
Michigan	280.8	3.1	4.9	5.11
Minnesota	330.8	2.9	3.8	3.89
Mississippi	239.5	1.8	1.8	2.11
Missouri	274.6	2.5	4.2	3.52
Montana	256.0	2.0	2.0	3.66
Nebraska	312.8	6.6	3.8	$4.59
Nevada	190.7	2.9	1.8	4.27
New Hampshire	449.4	2.3	4.1	4.53
New Jersey	383.8	4.4	5.3	4.94
New Mexico	116.3	3.5	1.8	4.91
New York	589.2	3.8	15.6	4.28
North Carolina	215.7	2.9	3.3	3.97
North Dakota	275.3	3.1	1.4	3.49
Ohio	299.4	3.7	4.5	4.21
Oklahoma	334.4	1.9	2.8	2.99
Oregon	286.5	2.7	3.2	3.87
Pennsylvania	352.1	4.2	6.5	3.73
Rhode Island	405.4	3.6	6.6	4.30
S. Carolina	270.7	1.5	1.5	2.41
S. Dakota	241.0	3.0	2.0	3.66
Tennessee	236.0	2.2	2.8	2.45
Texas	173.7	2.2	2.8	3.07
Utah	153.9	2.4	4.7	3.45
Vermont	329.2	2.9	5.1	4.65
Virginia	291.6	2.2	3.9	3.08
Washington	253.0	1.9	4.5	4.28
W. Virginia	274.5	2.1	1.7	2.33
Wisconsin	380.3	2.3	3.5	4.06
Wyoming	197.2	2.1	2.5	3.71
U.S. Average	**319.3**	**3.4**	**6.1**	**$4.06**

Data for Alaska and Hawaii not available.

Source: American Psychiatric Assn., National Assn. for Mental Health.

BIRTH CONTROL PILL FOR MEN

A new antispermatogenic with only minimal side effects passes first full year clinical trial



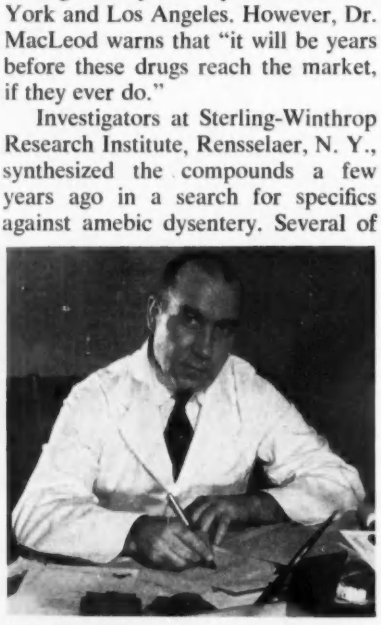
INFERTILITY, measured by three criteria, follows medication; placebo reverses it.

Only a few months after commercial introduction of oral contraceptives for women, a fertility expert has reported the most promising step yet toward the companion goal of birth control pills for men.

Dr. John MacLeod of Cornell University Medical College, N. Y., has reported to the American Association of Anatomists that a group of compounds related to certain amebicides "effectively inhibits spermatogenesis" with minimal side effects.

The compounds, already tested on prisoner volunteers for up to one year, are now undergoing limited trials among fertility clinic patients in New York and Los Angeles. However, Dr. MacLeod warns that "it will be years before these drugs reach the market, if they ever do."

Investigators at Sterling-Winthrop Research Institute, Rensselaer, N. Y., synthesized the compounds a few years ago in a search for specifics against amebic dysentery. Several of the substances—members of the chemical family called bis (dichloroacetyl) diamines—showed excellent amebicidal properties. But routine toxicological tests with rats showed that the animals' testes had decreased in size. Histological studies then revealed that sperm production had ceased.



DR. MacLEOD reports a breakthrough.

Effects Are Reversible

Sperm inhibition by the drugs turned out to be reversible, "with no apparent side reactions or permanent damage to the testes." The Sterling-Winthrop team's interest in the compounds was further whetted by evidence of exceptionally low toxicity. Animals endured doses up to 16,000 mg/kg—equivalent to about two and a half pounds of the drug in man—with no ill effects, either acute or chronic.

After further animal tests, human studies with three of the compounds began last year. The most potent produced "effective sterility" within a few weeks at daily dosages of 1,000 mg, says Dr. MacLeod. As shown in the previously unpublished data (chart above) both the number and the motility of sperm dropped rapidly, as did the percentage of normal sperm. When placebos were substituted for the drug, fertility returned to normal in all cases.

So far as can be determined, he declares, the compound affects no organs but the testes, where it interferes with transformation of spermatid cells into spermatozoa. Hematological studies over periods as long as one year show that the drug, unlike many sperm inhibitors, does not hinder hemopoiesis.

The only side effects thus far noted are flatulence, "which though embarrassing is hardly dangerous," and occasional dizziness. However, says the Cornell investigator, the drug sometimes potentiates alcohol, so that men taking it may become intoxicated on one drink.

The anti-spermatogenic effects of the drugs seem to have no connection with their amebicidal properties, Dr. MacLeod declares, for the most potent sperm-inhibitor among them is a very weak amebicide. A safe drug with both effects, he notes, would be especially useful in countries such as India, where both amebic dysentery and overpopulation are endemic.

Whatever the drugs' ultimate therapeutic value, says the Cornell investigator, they should prove valuable for research into infertility. Their specific effects — decreased sperm motility, lowered sperm count, increase in misshapen sperm and appearance of spermatids in the semen—"simulate a common, nonspecific reaction to illness, heat, cold and other forms of stress."

Artificial duplication of this form of infertility, he believes, may furnish clues to its cause—possibly disturbances in steroid metabolism. Significantly, he finds a relatively high percentage of sperm abnormalities among first-year medical students—a notoriously harassed crew. ■

CALIFORNIA MDs, DOs TALK MERGER

The future course of relationship between osteopathy and organized medicine may hang on forthcoming decision in a key state plus 'fruitful' series of meetings at the national level

Within a few weeks, two major decisions may be made which could abruptly change the long-simmering relationship between medicine and osteopathy.

On the national level, committees from the American Medical Association and the American Osteopathic Association will conclude a series of "fruitful" talks. The result might be action by the AMA House of Delegates in June to delete the word "cultist" from the AMA statements about osteopaths. If this happens, a major ethical barrier between DOs and MDs would crumble.

At the same time in California, two groups—osteopathy's largest state association and medicine's second largest state association—will decide whether to approve a contract that in effect would spell the end of osteopathy in that state. On its face, the California proposal as it stands calls for osteopaths to give up their name, tradition and school in return for a means of joining organized medicine.

Mutually Advantageous Move

"It is our belief," says California Medical Association president Paul D. Foster, "that the integration of the two professional groups in California will be mutually advantageous to the public and to the members of both professions. Every step in the negotiations has been taken with the full approval of CMA officers and council.

And the California Osteopathic Association's president, Dorothy J. Marsh, told MEDICAL WORLD NEWS that the proposed plan would "take away a source of confusion, open up choice of hospital to all doctors, provide money for research in osteopathy and provide better education for future doctors."

A key provision in the tentative plan now drawn up is that the COA is to use its influence to have the College of Osteopathic Physicians and Surgeons in Los Angeles—the state's only osteopathic college and one of six in the nation—converted to a medical school. In a few years, it is hoped, the revamped school would be eligible for approval by the AMA.

By then—or earlier, if provisional approval is granted — the college would award an MD degree instead of the DO. Moreover, any *previous* graduate of the school would be entitled to turn in his DO degree for an MD, and any California DO who graduated from another school would be eligible for an MD from the Los Angeles school after taking a refresher course.

To fit the converted doctors into organized medicine, the California Medical Association would rewrite its constitution to allow formation of one state-wide component medical group. Any physician with an MD from the converted Los Angeles college would be eligible for membership. Or he could seek membership in one of the 40 existing component societies or CMA, although there is no guarantee of acceptance.

While the American Medical Association has taken no direct role in the negotiations, it has given the project some tacit blessing. Two years ago, the AMA House of Delegates revised its policy on osteopathy just enough to open the door for intensified CMA-COA merger talks.

Under Protective Custody

The national osteopathic headquarters, on the other hand, is bitterly opposed to the merger—so much so that last fall it cancelled the COA's charter. A rival association, the Osteopathic Physicians and Surgeons of California, headed by Dr. Richard E. Eby, was recognized in its place.

The AOA and the newly-recognized OPSC charge the merger would place osteopaths under the "protective custody" of organized medicine rather than grant it full citizenship. The AOA points out, for example, that the agreement itself states the California Medical Association has no right to grant DOs membership on hospital staffs or in specialty societies; nor does the CMA have anything to do with accreditation of hospitals or certification of board men.

In effect, AOA told its California members that they'd be certain to retain their position in hospitals and specialty groups *only* if they remain osteopaths within the AOA; departure from the parent group would mean California DOs would have to go to the end of the MD line.

Although disenfranchised by the national osteopathic group, the COA

CONTINUED ON PAGE 12

PAUL D. FOSTER, CMA PRESIDENT

DOROTHY J. MARSH, COA PRESIDENT

TRUE EVELETH, AOA EXECUTIVE SECRETARY

ROY HARVEY, AOA PRESIDENT

MERGER TALKS CONTINUED

has managed to hold on to almost all its members—1,944 according to latest count. The newly recognized OPSC, by contrast, has only 300 or 400. And members of the "unrecognized" COA are still members of the American Osteopathic Association. Thus, the AOA is watching a partially-disinherited child decide an issue that could mean death for the "stepparent" organization.

How did this come about? For one thing, doctors of osteopathy in California have done very well for themselves under the "separate but equal" doctrine characteristic of recent osteopathic status. Almost one of every ten physicians in the state is a DO, and all are fully licensed (under their own board) to practice medicine and surgery on a par with MDs.

Osteopaths operate 63 hospitals throughout the state, including the new 520-bed osteopathic unit of Los Angeles County Hospital, built with $9,220,000 in tax money.

In short, California DOs have reached a strong position from which to bargain for membership in the medical fraternity. As far back as 1941, merger talks were begun between the COA and CMA. In 1952, MDs and DOs began to talk to each other nationally. As a result, an AMA committee headed by Dr. John Cline (a Californian) launched a three-year study of osteopathic teaching facilities. In 1955 this committee issued its famous report, which found little difference between the teaching in DO and MD schools; it urged that the "cultist" stigma be lifted to allow MDs to teach in osteopathic schools.

The AMA rejected the report, with a curt suggestion that negotiations between the two groups resume "if and when" the AOA voluntarily abandoned the "osteopathic concept."

The AOA did delete a reference to founder Andrew Still from its "Objectives." But AOA's executive secretary True B. Eveleth points out that it was not done to placate the AMA.

In 1958 the AMA House of Delegates considered another report on osteopathy—from the Judicial Council—which suggested that MDs should be allowed to "associate voluntarily" with DOs.

By this time, the CMA and COA were well along in the merger talks. The AMA House, instead of adopting the Judicial Council's suggestions, adopted the policy strongly urged by the California delegation that such voluntary associations between MDs and DOs were unethical; that MDs could teach in DO schools *only if* the schools were in the process of being converted into medical schools.

Problems of Common Concern

It also asked the Board of Trustees to appoint a liaison committee to meet with the AOA and "if mutually agreeable, to consider problems of common concern including professional relationships on a national level."

This AMA action was met head on. The AOA reaffirmed, by a huge margin, the "separate and distinct" status of osteopathy, and then warned state societies that merger talks outside the national level could result in revocation of a state charter.

But late last year the COA called a special House session. In the presence of AOA president Roy J. Harvey and other top brass, it voted to continue merger talks. That's when the COA charter was revoked.

The AOA fears that if the California merger goes through, osteopathy in this country will be compromised. Since about one-sixth of the nation's 14,000 DOs practice in California, the loss of this key state would be a heavy blow to the national organization. Even more significant is the effect of California's action on other states. At the special AOA House meeting in January, Dr. Dorothy Marsh openly predicted that her group's merger with medicine in California would pave the way for similar moves throughout the country.

The whole future of MD-DO relations may ride on the decisions of the CMA and COA in May. ■

BOWEL PLEATER CURBS ADHESIONS

One day in 1948, Dr. Samuel Kron and his associate Dr. Victor Satinsky were operating on a 26-year-old man with abdominal adhesions—for the third time.

And for the third time, the team of Philadelphia surgeons found the patient's bowel kinked and angulated, the wall friable. In such patients, they knew, ordinary methods of prevention and treatment are useless. There are cases in the literature that have come to operation more than 30 times, a successive series of operations that, as one author has stated, "may last as long as the patient, or the hopeful persistence of the surgeon, endures."

What could they do to prevent yet another series of crampy pains, bowel distention and obstruction inevitably leading to yet further surgery?

There was the principle of suturing adjacent loops of the bowel to make an orderly arrangement—a procedure suggested more than ten years before by Noble. Then it was a new concept in management, for it recognized that since intransigent adhesions cannot be prevented they might be controlled.

But despite a long series of successful cases in which it has been used there are disadvantages: the method is time-consuming and requires that the peritoneal content be exposed for a considerable time. Leakage may arise at the suture lines, causing peritonitis. Finally there is some danger that despite every care the angles of the loops may not be patent.

The surgeons weighed these problems—and came up with an idea. Why not thread a three-foot tube down the nose into the stomach, through the small bowel and fix it at either end? The shortness of the tube would produce pleating of the bowel like an accordion. If maintained in this manner for a few days, the inevitable adhesions should form an organized pattern and the bowel would remain free of obstruction.

This they did. They pulled one end of the tube through a cecostomy and

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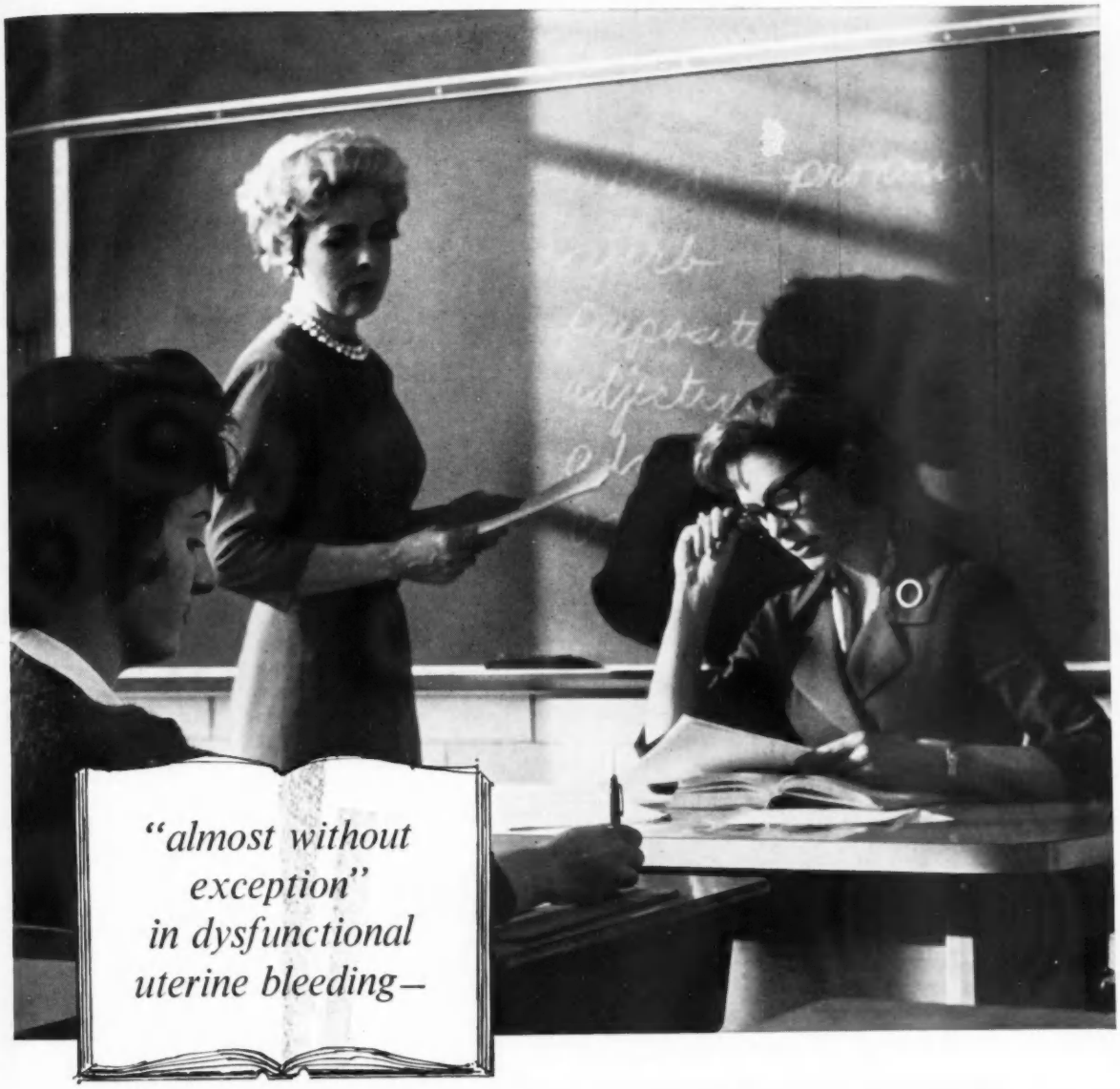

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Research in the Service of Medicine

1. Southam, A. L.: Dysfunctional Uterine Bleeding in Adolescence, Clin. Obst. & Gynec. 3:241 (March) 1960.

One pharmaceutical research executive points up the importance of failures as guideposts to success in the search for new or improved drugs when he says:

"Failure is our most important product."

The pharmaceutical industry's investment in research has been growing much faster than the industry itself. Last year the prescription drug companies spent a record $197 million for research, a five-fold increase in the space of ten years. Such an investment is possible, of course, only when there are profits. • This growth in privately financed research has sent the volume of laboratory failures soaring. For two years in a row the pharmaceutical industry has tested more than 100,000 substances in the search for new medicines. Fewer than two per cent showed enough promise for clinical testing. Only a handful will ever be sold as prescription drugs. The odds against finding a product with therapeutic value probably exceeded 2000-to-1. • But year by year, as the failures mount, the successes also increase, putting new or improved medications at the disposal of the medical profession. And the public benefits through better health, specific cures, shorter hospitalization, longer lives. • This is only one part of the massive assault on disease that engages the health team headed by the medical profession and embracing hospitals, nurses, pharmacists, technicians, and colleges. It is an effort that could only take place in a society which encourages individual freedom and guarantees incentives to freedom of enterprise.

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BOWEL PLEATER CONTINUED

drew the other end taut through the nose. The result, as Dr. Kron told the American College of Surgeons in Philadelphia, "was a pleated small bowel swinging on a tube."

The tube was perforated with numerous holes throughout its length in the small bowel, and suction applied at the nose end. This decompressed the entire bowel. To retain the arrangement into which it is pulled, the serosa along the bowel was purposely traumatized. The cecostomy end was not clamped, and the tube was irrigated frequently. The result, in this case, was a complete success.

In the 12 years since then, Dr. Kron, now of the Pennsylvania Hospital, has done this operation on 15 patients with obstructions due not only to adhesions but also from talc granuloma and metastatic carcinoma.

Opening in the Cecum

Today, to facilitate passing the special tube, Dr. Kron sends down a standard Cantor tube pre-operatively. At operation an opening is made at the cecum and the end pulled out, drawing with it the special tube.

Preferably the tube should remain in place for a period of six days, said Dr. Kron. By this time enough adhesions have formed between the adjacent loops of the bowel to retain the orderly arrangement, and reduce the possibility of recurrent obstruction.

While Dr. Kron does not advocate that this procedure be widely employed, he offers it as one method that the surgeon can try in a difficult situation — where medical management has failed and there is really little else the surgeon can do.

The method, he pointed out, does avoid some of the problems of the suture plication procedure. It takes less time to thread the tube through the bowel and make the cecostomy; since there is need for only one incision of the bowel there is less chance of peritonitis due to leaking.

Complications, he added, have been minimal in his cases. There has been some drainage from the cecostomy upon removal of the tube, but this cleared up without treatment. Diarrhea occurred in some cases for about three weeks.

And that first patient? He is still alive, Dr. Kron said, and there has been no recurrence of his obstruction. ■

SMOKING and prematurity are linked in survey by (l. to r.) Todd M. Frazier, Dr. George M. Davis, and biostatisticians Hyman Goldstein and Irving D. Goldberg.

CIGARETTES AND WOMEN AND PREMATURE BABIES

Study shows a relationship between mother's smoking habits and size of her baby

To the growing dossier on the relationship between smoking and health has been added another piece of evidence: By smoking a pack of cigarettes a day, a pregnant woman may double her chances of having a smaller, or premature, baby.

The finding comes from the first large-scale "prospective" survey on the subject, directed by Todd Frazier, head of the bureau of biostatistics of the Baltimore City Health Department. He enlisted the cooperation of 2,735 Negro women at the Baltimore Health Department prenatal clinic; to eliminate possible bias, he interviewed them during, rather than after, pregnancy.

For the purpose of the study, 2,500 grams birth weight was selected as the upper limit for prematurity. "About 20 per cent of the children born weighing under 2,500 grams die, while among children over that weight, the death rate is only three per cent," notes Dr. George M. Davis, clinical director of the clinic.

Results of the study, presented at the meeting of the Johns Hopkins Medical and Surgical Association, showed that the rate of "prematurity" for 1,563 nonsmokers was 11.2 per cent, compared to 18.6 per cent for 960 smokers.

The incidence of prematurity, says Frazier, shows an increase proportional to the amount smoked—from the low of 11 per cent among nonsmokers, to a high of 22.9 for women who smoked more than a pack a day.

The mean weight of infants of nonsmokers averaged 3,080 grams, compared to 2,924 for infants of smokers. The duration of pregnancy in the two groups, however, was only slightly different. This, says Frazier, indicates that smoking probably had an effect on fetal development rather than on length of pregnancy. The study also considered the possible effect of other factors: prematurity and maternal age, blood group type, initial hemoglobin level, sex of the children. In none of these was there a significant difference between smokers and nonsmokers.

Fetal death rates were found to be more than twice as high among infants of cigarette smokers than for those of nonsmokers—15.5 vs 6.4 per 1,000 births. Neonatal death rate, however, was only slightly higher—27.5 in infants of smokers vs 23.3 per 1,000 live births in nonsmokers.

The most likely possibility, according to Dr. Davis, is that smoking causes prematurity, probably through its known vasoconstrictive effect. If repeated several times a day, it decreases the blood supply to the intervillous space and affects fetal nutrition.

"Until the effect of smoking on prematurity is determined, each obstetrician must decide whether to advise his patients to limit smoking," he concludes. ■

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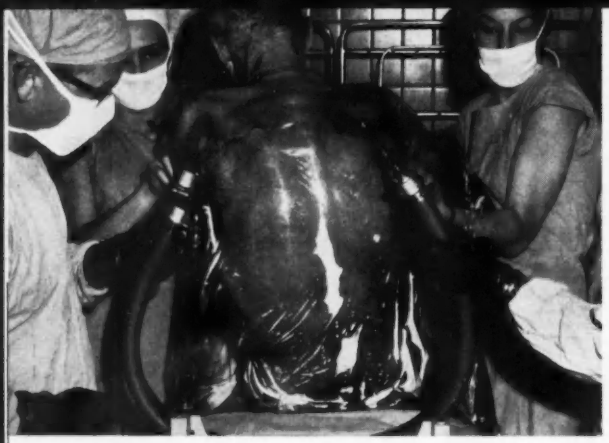
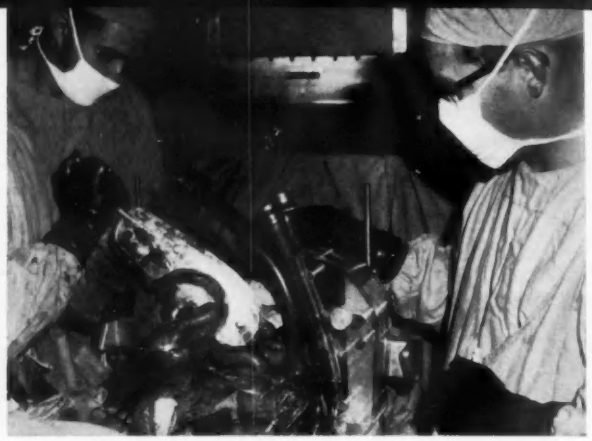


OUTER TUBE is placed around sterile-draped back.



LUCITE BLOCK secures inside tube around the small intestine.

ABDOMINAL TOURNIQUET UNDERGOES FIR

New device is designed to allow pelvic perfusion of anti-cancer drugs without systemic leakage. Developers foresee use of method for longer periods with more effective drugs

Stage one of a concerted attack on some major problems in regional chemotherapy for cancer has passed its first clinical test.

A pneumatic tourniquet, designed to stop leakage of anti-cancer drugs into the systemic circulation, has been effectively used for perfusion of the pelvis in cancer patients.

If further extensions of the preliminary work are successful, the new approach could greatly extend the time allowed for perfusion, the range of organs that can be treated and the number of agents that can be safely used, according to the developer of the technique, surgeon Daniel S. Martin of the University of Miami School of Medicine and Jackson Hospital.

Behind the new experiments is a knot that has long tied the hands of cancer perfusion experts (see p. 19). Highly toxic chemotherapy can be used without much difficulty in the extremities, where leakage can be almost completely controlled. But in the abdomen and pelvis, leakage has sometimes reached as much as 90 per cent an hour.

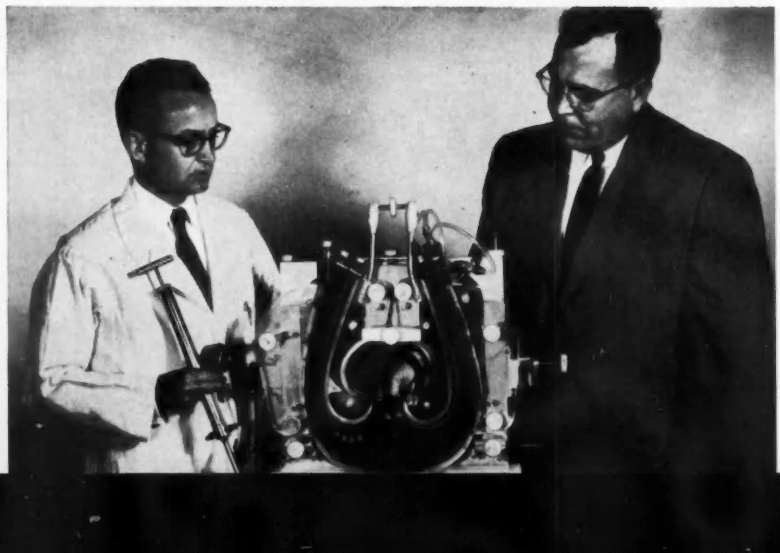
The pelvic tourniquet is one of the most striking of several ingenious new attempts to solve the problem. Although studies on leakage in treated patients are not complete, Dr. Martin reports that it was as low as six per cent in animal experiments prior to the clinical test.

The patients on whom the tourniquet has been used were severely advanced carcinomas of the pelvis, in extreme pain, who had requested the experimental surgery in preference to morphine or cordotomy. Surgery and radiotherapy had been exhausted in each case.

Using "the safest possible agent," nitrogen mustard, Dr. Martin and his 19-member operating team perfused the pelvic area for one hour, after compressing the aorta, inferior vena cava, descending colon and soft tissues with the pneumatic tourniquet.

Before anesthesia, the patient was draped with sterile plastic film, then laid back on the lower half of the pneumatic girdle frame where the outside pneumatic tube was already placed.

TOURNIQUET assembly is the work of surgeon Martin (l.) and engineer James Hobbs, and was made possible by a grant from the John A. Hartford Foundation of N. Y.



Procedure Continuously Monitored

Working through a transverse abdominal incision, the surgeon placed the inner pneumatic tube so that the major vessels were compressed between the two tubes, with the small intestine protruding freely through an inner opening. Catheters in the femoral vessels carried the blood into a heart-lung machine, where the nitrogen mustard was added; then the blood was returned to the pelvis.

Special monitoring equipment continously recorded blood pH, oxygen, carbon dioxide, pressure and other physiological changes. One technician served as a runner, continously taking "tagged" samples of blood to a Geiger counter room nearby, so that perfusion leakage could be monitored throughout the procedure.

The Miami group is now working on the second vital stage of their project. They are attempting to perfect a

PERFUSION is confined to pelvic area.

FIRST TRIALS

combined heart-lung machine and artificial kidney, a sort of "complete artificial placenta" that could keep all the body functions operating normally for extended periods. Dr. Martin estimates it will take at least a year to perfect the equipment.

"With this technique, if we can confine the leak—as we believe we can—we may be able to perfuse up to three or four hours. This should open up a whole new class of chemotherapeutic drugs that cannot now be safely used.

Long Contact Ruled Out

"Some drugs not only kill tumors in animals but are also highly effective against human tumors *in vitro*. But they require lengthy contact with the tumor if they are to be effective. With previous techniques, such long contact was ruled out because of the high rate of leakage of this toxic material into the systemic circulation.

"Once we work out the gadgetry, there is no reason why we cannot attempt this treatment in earlier cases, rather than just those terminal patients to whom perfusion has been largely directed. In cancer of the uterus or rectum, for instance, three hours with a good agent might do the job.

"The whole rationale behind our experiments, of course, is that surgery and radiotherapy in general may not be doing as much as could be accomplished by chemotherapy and immunotherapy. What we are working toward is a way to allow drugs to make the maximum contribution with the maximum safety." ■

REGIONAL PERFUSION: 'HANDLE WITH CARE'

Pioneers of the technique caution that it is still too new for wide clinical use

The idea of pouring high doses of toxic agents into tumors while sparing the rest of the body has captured the imagination of many clinicians. It also has begun to cause some consternation among the very men who pioneered its development.

Regional perfusion, an ingenious technique, has produced some clinical successes. And it may someday have truly substantial and widespread therapeutic value. But it is a complicated procedure, still in the developmental stage, and it should be approached with respect.

"It distresses me," says Dr. Richard H. Jesse of the M.D. Anderson Hospital and Tumor Institute, Houston, "to see smaller hospitals without good teams or equipment doing regional perfusion. In my opinion, the procedure is being received unfavorably in these communities because it is being tried as a treatment rather than an experiment. If I may be allowed to inject a sober note, we should realize this is an experimental procedure."

Ultimate Value Unknown

Dr. Oscar Creech, Jr., of Tulane University, pioneer in the regional chemotherapy approach, seconds Dr. Jesse's plea for caution, conceding that the results of more than three years of clinical trial have been "limited" and that the ultimate value of the technique remains to be determined.

The best results so far, he notes, are in treatment of carefully selected malignant melanomas of the extremities, either as an adjunct to surgery or as the principal therapy. Drs. Creech and John S. Stehlin of M.D. Anderson Hospital, for example, routinely use perfusion as an elective procedure in such cases.

Dr. Stehlin has given 124 perfusions to 92 such patients since 1958. Thirty-four patients whose primary tumors had been excised were living as of last September without evidence of recurrence or metastasis. Six patients, treated by perfusion only, exhibited signs of improvement. And biopsies of tumors excised as long as nine months after perfusion showed "impressive degenerative changes, clinically and histologically."

Perfusion was used in another 18 patients with local recurrence or single metastasis following removal of the primary lesion. Twelve were apparently well as of Sept. 1, three had evident disease and three had died. The results were less impressive in patients with regional or distant metastases.

Adjunct to Surgery

Dr. Creech reports similar results in a series of 87 patients. In 18 cases where perfusion was used as an adjunct to surgery there was no evidence of recurrence or extension as of last October. In 75 cases where palliation was the principal aim, 44 per cent remained quiescent.

In the case of sarcomas, experience has also been somewhat encouraging. In a series of 50 patients treated over a three-year period, for example, Dr. Edward T. Krementz of Tulane obtained better results by perfusion than by systemic chemotherapy.

In all these cases, the main problem of perfusion—leakage—can be fairly easily curbed. Losses of the drug, as Dr. Gerald Austen of Harvard pointed out, may range from only two per cent (abductor canal cannulation) to 25 per cent (external iliac) after 40 minutes. But in pelvic, abdominal and cerebral perfusion, leakage is much greater. In Dr. Austen's studies, pelvic losses averaged nearly 50 per cent after 40 minutes, and cerebral leakage ran well above that.

This escape of the anti-cancer agent from a circumscribed area into the general circulation frustrates the whole aim of high localized concentration, and is the reason most perfusion work has been limited to the extremities.

But some intriguing new approaches to the problem are being worked out. One is the abdominal

CONTINUED ON PAGE 20

REGIONAL PERFUSION CONTINUED

tourniquet developed by Dr. Daniel S. Martin (see p. 18). Another ingenious technique has been reported by Dr. William Shingleton of Duke University. It is a combination of systemic hypothermia—to reduce the uptake of toxic anti-cancer agents by normal tissue—and hyperthermia of the tumor area—to make it more reactive to the drugs.

In 13 patients given abdominal perfusions and eight patients given pelvic perfusions, there was no operative mortality, nor any fatal leukopenia. And one "outstanding clinical effect" was the relief of pain in four patients with pancreatic carcinoma.

By such techniques, the perfusion method is being carried to the brain, the head and neck, the liver and even the lung. But brooding over all the work is the basic limitation of present anti-cancer agents, and such corollary problems as the inability to perfuse a tumor except for brief periods.

Chemotherapy with Antidote

One of the more promising lines of research in this direction has been the work of Dr. Robert D. Sullivan and his group at Sloan-Kettering Institute, New York. Instead of perfusing for brief periods, they have been giving supralethal doses of *Methotrexate* (Lederle) by continuous 24-hour infusion into arteries at a localized cancer site. At the same time they administer intramuscularly the specific antidote, *Leucovorin* (Lederle) (citrovorum factor).

In 27 patients with epidermoid carcinoma of the head and neck, partial tumor regression was noted in 21 and total regression in five. Partial regression was noted in six patients with lymphosarcoma; one total and three partial responses occurred in four patients with Ca of the cervix, and one with a brain tumor obtained relief.

Leaders of the National Cancer Chemotherapy Program share the view of some of the investigators in the field that the ultimate significance of perfusion in cancer chemotherapy remains to be seen. But they feel it should continue to be explored and developed. While clinical results are being evaluated, chemotherapy is helping to shed important light on the mechanisms of tumor action, tissue responses, immune mechanisms and the effects of drugs on tumors. ■

"The nurses pray that the Lord will forever expand the hospital.

THE BURMA SURGEON

Dr. Gordon Seagrave became known to millions almost 20 years ago with his best-seller, *Burma Surgeon*. In 1951, his name hit headlines again when he was tried—and acquitted—on a charge of treason against Burma. Since then, he has been almost a forgotten American except for loyal friends.

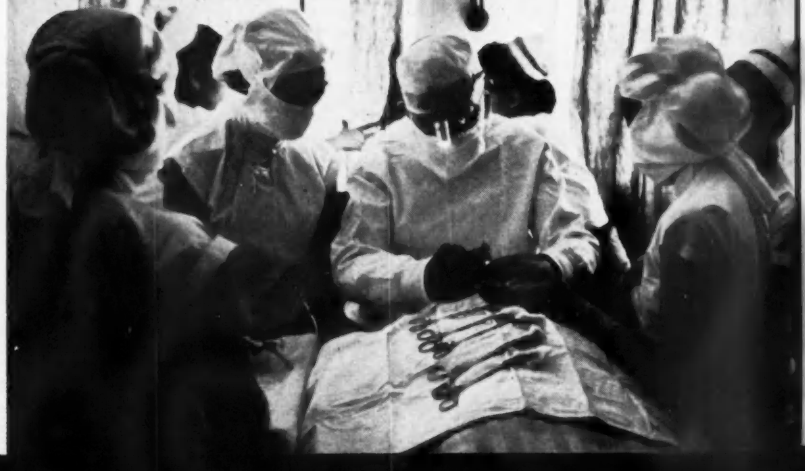
But through the last 39 years he has stuck to his post. He is still there. His hospital at Namkham, Burma, one mile from Communist China, is staffed by 19 nurses, 77 student nurses and two doctors. It serves an area of 400,000 people. Gordon Seagrave's salary is $90 a month. It costs $75,000 a year to finance Namkham; almost all is raised through voluntary contributions.

The nation-wide TV program *The Twentieth Century* has now brought his story up to date, mostly in his own words:

"When I came up here [in 1922] and saw that little old hospital building and just one patient in there, and the largest number of inpatients they'd had in a year was 28, I just cried.

"I could see that their medical and surgical needs were about as great as you could find anywhere in the world. The thing that was important to me, especially at the beginning, was the fact that as an American—just one American medical man—I just couldn't do one thing for these people that was worth-while. I looked all over Burma to try to get doctors and nurses. I didn't have the money in the first place, and they didn't have the doctors and

"Surgery is a thing that you just don't learn in school. You learn it in fingers. It was years before I finally got doctors that I could really te



Every time they do I'm scared, because the Lord listens."

"It took years to get women here before delivery. They'd come with the baby dead."

EON REVISITED

nurses in the second place. And I decided that since training doctors was out of the question, I'd start training nurses.

"We have 262 patients here today, and a total of 250 beds. That means that the other 12 are lying on the floor somewhere.

"All through the East, all through India and Asia, the really needy man is the peasant, the common man. You help them, and later on your influence spreads to some of the bigger towns . . . . If the United States Government helps the government of the Union of Burma, no matter how many millions of dollars, whatever they do has to start from the cities and then it spreads out, to the common man in the villages, who is the real man of Asia.

"We can begin backwards. We can begin in a place like this that can't afford to give us the equipment that we want. We never have had enough money to do one darn thing. But we can give them good treatment. We can give them good surgery.

"I've been ill, again and again. Sometimes I've been so ill that I've wondered whether I'd wake up the next morning. My friends in America have tried to force me to go back on account of my health. And I know it would improve if I once got to America. But I'm still scared that accidents might happen on the way there or on the way back. And I know it's corny. The only way that I can prove to these Burmese that I have meant every word I ever said to them is for me to die right here in Namkham." ■

"I am not a missionary. I am a man with a mission. You help them, then later on your influence spreads and other people are helped."

"We haven't built a single building that wasn't filled before completion — a terrific problem."

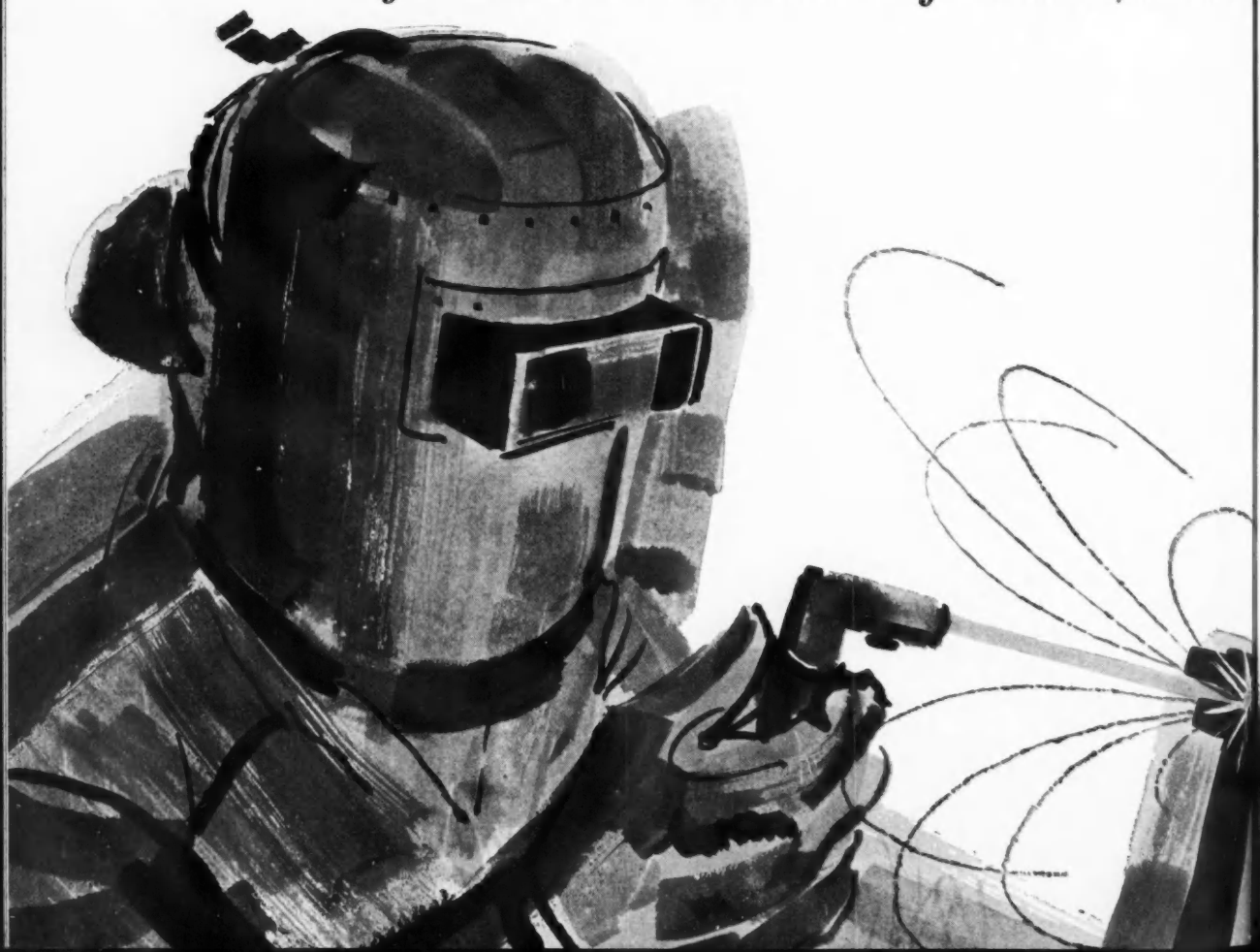
high-performance
oral antibiotic

quickly returned him to his job . . .

DARCIL®

Phenethicillin Potassium, Wyeth

for an added measure of assurance.....



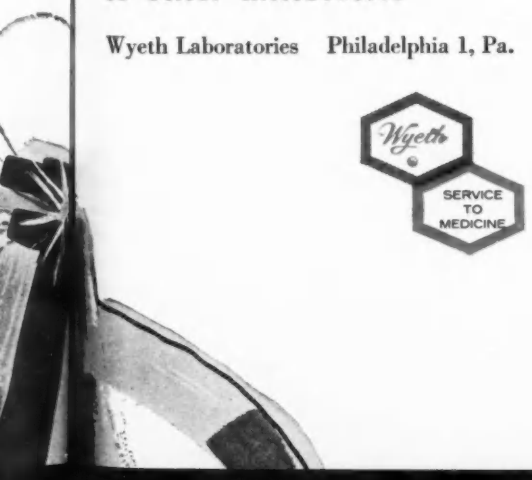
.....reliable absorption

consistently high peak serum levels

lethal action against the commonly encountered pneumococci, streptococci, and gonococci

lethal action also against clinical isolates of certain Staph. aureus resistant to other antibiotics

Wyeth Laboratories Philadelphia 1, Pa.



Reliable Absorption Promises Consistent Effectiveness

Numerous investigators have shown that the absorption of oral antibiotics varies not only from subject to subject, but also in the same subject at different times. To provide a high degree of therapeutic assurance, therefore, requires an antibiotic that is on the average well absorbed. High absorption, of course, implies high serum concentrations which, in turn, means an increased likelihood that tissues will be supplied with adequate antibiotic.

The absorption of phenethicillin potassium (DARCIL) has been investigated both by studies of serum concentrations and urinary excretion rates.

Maximum Absorption Indicated by Prompt, High Peak Serum Levels. Blood level studies demonstrate the reliable absorption of phenethicillin potassium. In studies employing single oral doses of 250 mg. of phenethicillin potassium, Morigi and associates[1] determined that peak serum levels of the antibiotic were attained within an hour after ingestion; assayable levels were maintained for 4 to 6 hours. Knudsen and Rolinson,[2] among others, have also demonstrated that phenethicillin potassium produces unusually high blood levels.

Serum Levels Directly Reflect Dose Levels. Cronk and associates[3] performed an interesting experiment that emphasizes the absorption of phenethicillin potassium. Phenethicillin potassium was given to healthy adults in progressively increasing doses. *The resultant serum levels were directly proportional to the doses given.*

Average Serum Concentration ½ Hr. after Administration

Dose (Mg.)	*Mcg./Ml.*	*Units/Ml.*
134	2.72	4.35
268	4.28	6.85
536	8.15	13.0
804	12.3	19.7
1072	19.1	30.6
2144	39.6	63.4

Therefore, when treating a patient with a severe infection, the physician may, by adequately increasing the dose, produce serum concentrations that should be sufficiently great to affect less susceptible pathogens.

Excellent Absorption Indicated by Urinary Excretion Studies. Knudsen and Rolinson,[2] in a study of 9 fasting subjects, reported that a mean of 60% of the dose of phenethicillin potassium was excreted in the urine within 6 hours after ingestion of the drug. Cronk and associates[3] found a lower, although still high, rate: 24 to 35% of a given dose of phenethicillin potassium was excreted in the first 6 hours; almost three-quarters of this percentage was excreted in the first 2 hours alone. Morigi and associates[1] collected urines of 10 healthy subjects at 6-hour intervals following a dose given one hour before meals. As can be seen, the excretory rate of phenethicillin potassium reflects prompt absorption and utilization.

Average Urine Concentrations Following a Single Oral Dose of 250 mg. Phenethicillin Potassium

	0-6 Hrs.	*6-12 Hrs.*	*12-24 Hrs.*
phenethicillin potassium	30.9%	0.4%	0%

References: 1. Morigi, E.M.E., Wheatley, W.B., and Albright, H.: Antibiotics Ann., 1959-60, pp. 127-132. 2. Knudsen, E.T., and Rolinson, G.N.: Lancet 2:1105 (Dec. 19) 1959. 3. Cronk, G.A., Naumann, D.E., Albright, H., and Wheatley, W.B.: Antibiotics Ann., 1959-1960, pp. 133-145.

SUPPLIED: DARCIL Tablets (peach colored, scored)—250 mg. (400,000 units), 125 mg. (200,000 units) phenethicillin potassium, bottles of 36 and 100. DARCIL for Oral Solution—125 mg. (200,000 units) phenethicillin potassium per 5 cc. teaspoonful, bottle of powder to be reconstituted to 60 cc.

Although infrequent, adverse reactions to many modern drugs may occur. For further information on limitations, administration and prescribing of DARCIL, see descriptive literature or current Direction Circular.

DR. FOX GIVES Rx ON WRITING

Editor of 'The Lancet' sharpens tongue at heavy prose, urges MDs to 'write as they speak'

For physicians who feel bludgeoned by both the quantity and the quality of medical prose, the editor of what is widely regarded as one of the best professional journals in the English language had a word or two of comfort last week:

The level of doctors' writing is on the upgrade.

This consoling opinion came from Dr. T. F. Fox, editor of the British medical weekly *The Lancet*, who recently visited the U.S. To a MEDICAL WORLD NEWS interviewer, he pointed out that the improvement has been fostered by a new emphasis on writing in medical papers, and by books and lectures on medical writing.

But as a veteran editor forced to read 1,600 papers annually, Dr. Fox admits that he is puzzled by "the too elaborate, ponderous prose" of many American physicians. Nobody uses speech with more vigor than Americans, Dr. Fox points out. "What they say aloud is usually concise and effective . . . yet when the American doctor takes pen in hand, he all too often seems constrained to use a sort of scientific literary language which conceals sense instead of displaying it.

"In my opinion, the writer is not writing as himself—as a human being, as a person—but in the pretentious way he thinks fitting for an author," says Dr. Fox.

The editor of *The Lancet* has also been struck with the fact that medical writers frequently present their observations in a curiously impersonal way. "It comes from a wish to consider disease in detachment from patients," he thinks. "I believe that real harm has been done to medical practice by teaching doctors to think in terms detached from people. It is this that leads to Mrs. Smith becoming, in the doctor's mind, the case of splenomegaly in bed 61—at which point the human relationship is broken.

"In *The Lancet* we prefer that the facts not be disguised—that patients be called patients, not subjects, or material or a series. And if people have to die, I'm against efforts to escape reality with phrases such as 'proceeded to a fatal termination.' "

While critical of some American medical writing, the British editor has only praise for the *New England Journal of Medicine*, which he calls outstanding. "It is not discouragingly big. Editor Joseph Garland's fine New England tradition, and his attractive philosophical outlook are evident, not only in the editorials but throughout much of the *Journal*."

To Enliven the Tone

Dr. Fox represents a medical tradition himself. He is the sixth generation in the male line in medicine. His own interest in journalism began at an early age, when he wrote for school and hospital publications. After receiving his medical degree from Cambridge and interning in a London hospital, he spent two months as a ship's surgeon. In 1926 he joined *The Lancet's* staff and became its editor in 1944.

The Lancet, which has a weekly circulation of 30,000, publishes 30 per cent of all papers submitted. "Perhaps we are not ruthless enough, but if more papers were below standard, it would be easier to reject them."

To enliven the tone of medical writing, Dr. Fox offers this prescription:

"We should base our writing on our speech. Language is primarily something spoken, and only the highly expert should venture far from the straightforward terms in which we instruct our wives, reprove our children and tell the baker how many loaves to deliver." ■

Editor's

AZYGOS VEIN VISUALIZATION AIDS DECISION TO OPERATE

If the present impression of azygography is borne out, the technique will prove to be an important aid in determining the operability of intrathoracic cancers.

The azygos vein can be opacified and roentgenographically visualized by injecting a contrast medium into the posterior segment of a rib, and then filming the area.

Usually, the entire vein can thus be demonstrated right to its point of entry into the superior vena cava. In a series of normal subjects tested, there was no indication of venous displacement, bowing, narrowing, or obstruction or interruption of the blood flow. Neither inspiration nor expiration caused any demonstrable alteration in the size or filling pattern of the azygos. Similarly, in patients with cirrhosis or congestive failure, the appearance remained essentially normal, although in one case of congestive failure, there was slight dilation.

In contrast, ten patients with intrathoracic cancer exhibited signs of azygos vein obstruction—specifically, interruption in the cephalad flow of the contrast medium, a downward retrograde flow of the substance into the ascending lumbar veins and into various collateral veins on the posterior and lateral chest wall. In none of these did complete resection prove feasible. *Bachman, Ackermann and Macken; Ann. Surg., March 1961, pp. 344-56.*

DURAL DEFECTS CLOSED WITH DURA MATER GRAFTS

Many materials have been used to repair dural defects, but practically all, for one reason or another, have been unsatisfactory. Since techniques for sterilizing and storing tissues are available, it seemed that dura mater might be grafted with the same success as other tissues.

Experiments in dogs revealed that non-viable homologous grafted dura undergoes a process of swelling, degeneration and absorption. The entire grafted area is replaced with a new membrane of viable, collagenous fibers derived from the host dura, forming a non-inflammatory, non-adhesive surface covering the cortex.

Dura was obtained at autopsy

Choice

from unembalmed bodies, sterilized with beta-propiolactone and put in Hank's solution, in which it may be kept for eight to ten weeks, or lyophilized and kept *in vacuo* for two to three years. Dura prepared by both methods was used in this series, but the majority of grafts were nonlyophilized because it was convenient to prepare and maintain them in Hank's solution.

Fifty-two patients have had dural defects or fascial defects associated with meningomyeloceles corrected by these grafts with excellent results in the majority. The most common postoperative complication was collection of sterile fluid between the periosteum and the graft in those patients with a calvarial defect. This was corrected by repeated needle aspirations or by a polyethylene drain left in place for a few days. *Mason and Raaf; Ann. Surg., March 1961, pp. 423-32.*

JACK RAT SHOULD EAT NO FAT IF HE GETS X-IRRADIATED

The combination of high-fat diet and x-ray may prove too much for the circulation.

Rats placed on a high-fat diet (lard, cholic acid and cholesterol) were divided into two groups, one of which received chronic radiation. Both groups showed atherosclerotic changes in the abdominal or thoracic arteries. But those subjected to the insult of 2,500 r had far more pronounced defects; more than one-fourth showed changes in the coronary arteries, compared to none in the non-irradiated group. Similarly, 46 per cent of the irradiated animals had alterations in the pulmonary arteries, though none were present in the other groups. Corresponding pathology appeared in the endocardium of one-fifth of the x-rayed rats, but in only one-tenth of the others. *Gold; AMA Arch. Path., March 1961, pp. 32-37.*

DORNASE OPENS AIRWAYS IN BRONCHOPULMONARY DISEASE

Enzymes, like many biologic substances, are effective if properly used, completely useless if misused. This is particularly true of proteolytic enzymes, such as pancreatic dornase, which destroy themselves rapidly once they are put into solution. To avoid this enzymatic suicide, the material must be put into solution immediately prior to use.

When so handled, pancreatic dornase yields excellent relief as an aerosol inhalant in bronchopulmonary distress by dissolving thick and tenacious sputum or mucus. Dornase (*Dornavac,* Merck Sharp & Dohme), administered by inhalation or endotracheal spray, was effective in relieving postoperative atelectasis and tracheitis sicca in more than 336 cases. Used early in the postoperative period, it obviated the need for endotracheal aspiration. It also proved helpful in raising sputum, thus incidentally providing specimens for Papanicolau-smear analysis. Toxic or adverse reactions to dornase are rare, and in only one instance, a patient who had received radiation therapy, was the irritation severe. *Cliffton and Grossi; Cancer, March-April 1961, pp. 414-20.*

STUDY LINKS TRAUMA AND CANCER

Medico-legal experts say new experiment will have a profound effect on court decisions of the future

Lawyers admit they seldom relish representing the client whose claim involves trauma and cancer. The reason lies in a simple fact: 98 per cent of such cases are dismissed for lack of substantiating evidence.

But all this may all be changing. At the Chicago meeting of the American Academy of Forensic Sciences, a team of investigators from the Waldemar Medical Research Institute, Port Washington, N. Y., has reported experimental evidence which Academy president Dr. Russell S. Fisher believes "may very well cut the courts' rejection of trauma-cancer cases by as much as 50 per cent."

RESEARCHERS Gottfried and Molomut study tumors induced in laboratory mice.

The finding by Drs. Bernard Gottfried and Norman Molomut that "injury can accelerate the induction and progression of cancer" is based on extensive studies on mice.

In one series, the Waldemar Institute team transplanted mammary adenocarcinoma (H 2712) and, subsequently, subjected the animals' skin to surgical wounding—1.5 mm from the graft site. At the end of nine days, they found that 68 per cent of tumors in the traumatized mice had grown to more than three square cm, whereas tumors in only 12 per cent of control animals had grown to this size.

To Test Effect of Trauma

In another study, mice were injected with a cell suspension, then surgically traumatized. After nine days, 44 per cent of the wounded animals had tumors greater than three square cm as compared to a low of eight per cent among controls.

In order to test the effect of trauma on the latent period of tumor growth, or the period between inoculation and palpability, cancer cells were inoculated into implanted gel foam and the animals repeatedly wounded. "At the end of eight days, 53 of the 72 wounded mice had tumors. They ranged from the palpability stage to one cm in diameter. Only 40 of the 72 control mice, however, developed tumors—with none more than five mm in diameter."

In still another study, the Waldemar investigators reported test animals injected with the carcinogen 3, 4, 9, 10 dibenzpyrene and traumatized not only developed more tumors than the controls but developed them more quickly. For example, only one per cent of the control animals had neoplasms at the end of ten weeks; 30 per cent showed tumors three weeks later. In animals whose skin was regularly wounded three times weekly, however, 22 per cent developed neoplasms at ten weeks, 58 per cent at 13 weeks.

Also significant was the finding that mice subjected to laparotomy every two weeks had 47 per cent neoplasms at ten weeks and 74 per cent at 13 weeks.

Concluded Drs. Gottfried and Molomut: "Our data not only gives experimental confirmation of the deleterious effect of trauma on tumor growth, it also demonstrates that the physiological sequelae of repeated surgical trauma—at sites distant from tumor implantation and carcinogen tumor induction—significantly affect the process of tumorogenesis and progression by shortening the latent period of induction and stimulating growth progression.

"In short, trauma may act as a co-carcinogen."

Commenting on the Waldemar team's report, pathologist Fisher, who is also chief medical examiner of Maryland, told MEDICAL WORLD NEWS:

"I have no doubt that the Gottfried-Molomut experiments will furnish evidence the courts have long needed to settle thousands of cases of trauma-cancer."

No Longer Carte Blanche

Many millions of dollars are involved in such litigation, Dr. Fisher pointed out, confessing that because of the Waldemar experiments, he will now be forced to revise much of the material he has written on the subject for legal textbooks.

"No longer can expert witnesses present the *carte blanche* notion that trauma doesn't aggravate cancer. Now they'll have to see if a significant trauma was present to influence cancer. And as the experiment with laparotomy indicates, injury doesn't even have to be at the site. These experiments mean that whatever form of resistance to cancer a person has, it somehow is weakened by trauma. Or, conversely, that the body's reparative process somehow stimulates the growth of cancer."

Taking a look at the possible implications for the surgeon, Dr. Fisher commented:

"We have to remember that all operations involve some kind of risk. The Gottfried-Molomut studies merely focus attention on another — but statistically smaller—risk. The risks of harm are less than those from anesthesia, infection and inaction."

To this, Dr. Gottfried added: "These data will alert the surgeon to some aspects of the surgical attack that may not have been generally appreciated heretofore." ■

DOCTOR'S BUSINESS

The nation's unemployment crisis (5½ million looking for work) has not affected the medical profession, nor is it likely to. An area-by-area survey by the U.S. Department of Labor indicates that there are "widespread demands" for medical personnel. In fact, while the number of jobless in other lines of employment has increased, demands for doctors and medical workers have been going up. According to the Department, "unmet needs continue to be reported for registered nurses, physicians, therapists, dieticians and other related workers."

No tax cut is in prospect for this spring, despite rumors that one would be instituted as a counter-recession measure. President Kennedy's economic advisors are now convinced that the recession is past its rock-bottom low; they foresee a modest upturn beginning in the next two or three months. The contemplated tax cut was never considered as anything but an emergency measure to stimulate the economy if the recession got worse. Scheduled cuts for excise taxes on cigarettes, cars, liquor and gasoline will be put off for another year, but you may figure on a token cut in the Federal tax on plane, train and ship transportation.

Country club dues, frequently considered as legitimate tax deductions by doctors, are getting a closer check by the Internal Revenue Service. Agents now demand concrete evidence that membership in the club is essential to an MD's practice. A number of professional and business men have already had the deduction disallowed during audits of their returns. Your best course: Keep a careful record of entertainment and other club activities wherever professional or business associates are involved.

Doctors are youngest in the South and also are in shortest supply. Their median age is slightly over 43. In the Northeast, the median age is about 47, in the West 43.5, while in the North Central section of the country it's just shy of 45. The Northeast has more doctors, however—160 per 100,000 population. In the West, the ratio is 144 per 100,000, in the North Central area 111 per 100,000, while in the South it's about 102 per 100,000.

Automobile insurance plans that provide savings for safe drivers, now in effect in 33 states, are spreading. New York State has just announced such a plan and New Jersey will probably follow suit in the spring. Physicians who are eligible for a rate cut will get the reduction in payments just as soon as their policies come up for renewal.

The new head of the Internal Revenue Service says tax audits will be more widespread. Mortimer Caplin, 44 years old and one-time University of Virginia law professor, believes the Service's paper work will be made almost completely electronic not too many years hence. Result: Nearly all long forms will be audited. Caplin says he's convinced taxpayers will feel better about paying once they know Uncle Sam is checking all important returns.

Spring charity drives conducted in many U.S. communities can bring tax savings to donors. Physicians who give clothing, furniture, books and other property to a recognized charity can claim the fair market value as a charitable deduction. Adequate records to support the claim are a must, however.

What a family spends for medical care: The annual expenditure averages between $100 and $500 a year for the majority of families—and that includes everything from aspirin to serious operations. One out of six families has an annual medical bill of less than $50 but one out of five will spend in excess of $500. Added up, about $19 billion is spent each year for medical purposes. The Health Insurance Institute, which compiled these figures, advises a carefully planned insurance program to carry the load. In addition, it recommends that every family should set aside three to five per cent of its annual income as a "medical emergency fund."

The number of malpractice suits will probably level off in the months to come, according to William C. Stronach, executive director of the American College of Radiology. After completing a survey of lawyers and insurance carriers, Stronach made this comment: "The plateau we've reached gives no cause for comfort, but at least the situation has leveled off."

(Advertisement)

LEDERLE MEETS EMERGENCIES

As a leader in the pharmaceutical industry, Lederle often shares the burden, when emergencies arise, of supplying physicians and aiding individuals in need. At Lederle, an emergency service – geared to supply drugs quickly and efficiently in distress situations–responds almost daily to appeals from the entire free world. In these cases, Lederle defrays the expense of extraordinary delivery and often the cost of the drug itself.

IN NATIONAL DISASTERS In major disasters, rapid replacement of damaged or lost drugstore and hospital stocks, plus supplies of typhoid vaccine and other biologicals, are critically needed to forestall epidemics. After Hurricane Diane in 1955, to get medical supplies to flooded sections of Connecticut, Lederle organized an airlift of small planes to fly drugs directly to stricken areas.

AND ABROAD When two catastrophic earthquakes virtually destroyed the city of Agadir in Morocco, rescue/relief teams and medical supplies were immediately mobilized all over the world. An emergency shipment of Lederle antibiotics and other medicines was sent aboard a special flight from New York. The shipment, valued at $12,000, was donated by Lederle.

In May, 1960, Lederle supplied Gas Gangrene Antitoxin to stricken Chile following the tragic series of earthquakes. Other emergencies involving smallpox and trachoma epidemics have been similarly supplied.

IN PERSONAL CRISES When dinner in western U. S. A. ended in botulinus poisoning for six members of a family, Lederle supplied antitoxin from its 13 depots around the country. At the Pearl River laboratories, technicians packaged nearly all the remaining Botulism Antitoxin in the country – a total of 139 vials – for jet shipment. This rapid, coordinated action is credited with helping doctors save three of the victims. As stated by Representative H. H. Budge (Idaho) in the Congressional Record (Vol. 105, No. 140, August, 1959), "Lederle Laboratories did a most generous and kindly deed when it cancelled out a $7,825 bill for the antitoxin and also paid the air freight costs..."

WITH SPECIAL FACILITIES Extensive facilities—much larger than those required to meet normal needs—are devoted to preparing and maintaining stocks of many Lederle antisera, antitoxins, vaccines and other biologicals.

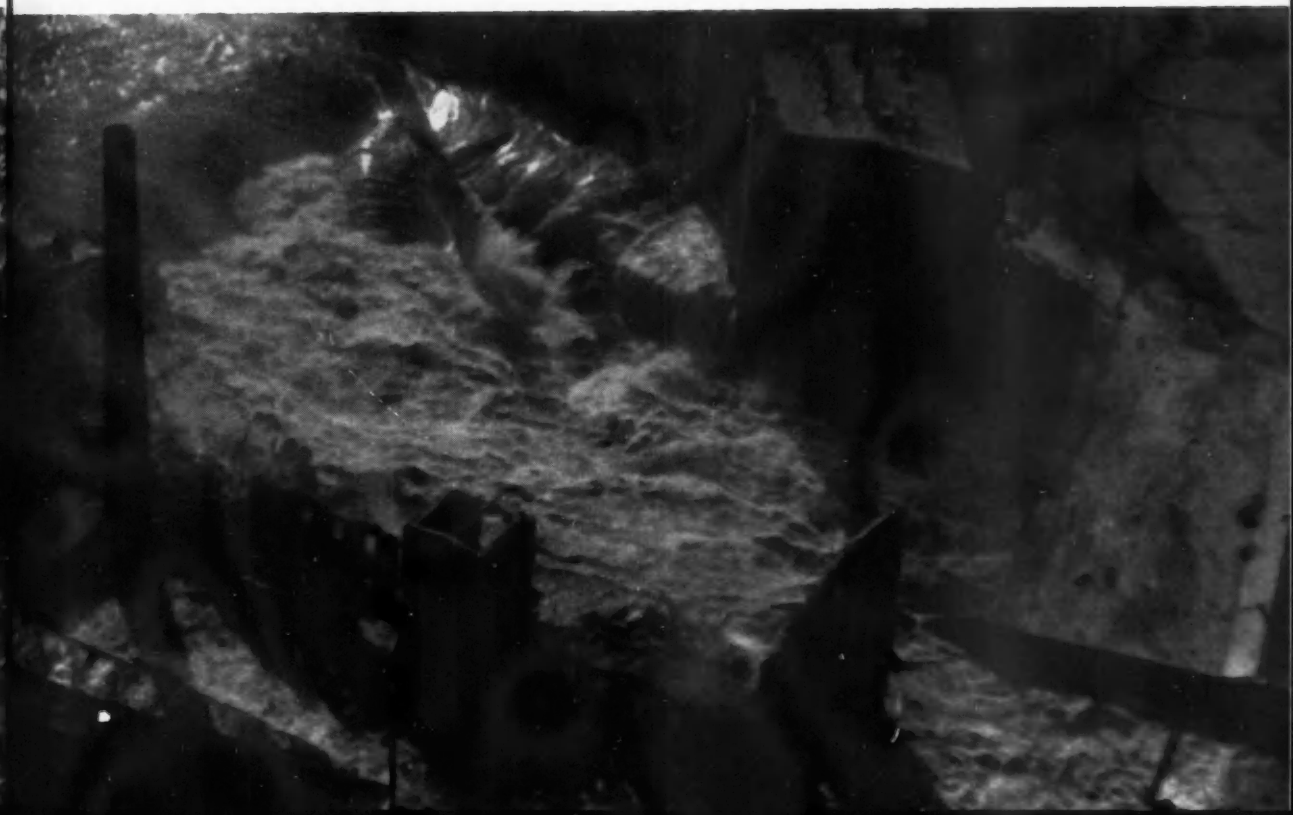
These drugs are so specialized, and have such short shelf life, that they often cannot economically be stocked by hospitals and pharmacies.

Many bottles are never used and must continually be replaced when out-dated . . . to be ready for the unpredictable emergency.

AND SPECIAL SERVICE Lederle service in an emergency is available on a round-the-clock basis. Packers, traffic experts, drivers, even pilots, are alerted by a standard plan for answering distress calls. These are some of the activities maintained by Lederle and the pharmaceutical industry to serve the nation and the free world.

Lederle

LEDERLE LABORATORIES,
a Division of AMERICAN CYANAMID COMPANY
Pearl River, New York



Names in the News

POSTS AND AWARDS

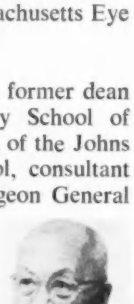
Dr. Frank Huennekens, associate professor of biochemistry at the University of Washington, Seattle, received the Paul-Lewis Laboratories Award in Enzyme Chemistry during the American Chemical Society's national meeting in St. Louis. **Dr. Sarah Ratner,** biochemist of the Public Health Research Institute of New York City was given the Chemical Society's 1961 Garvan Medal for outstanding work by a woman chemist.

Dr. George A. Wolf Jr., dean of the University of Vermont Medical College, has been named executive director of the Tufts-New England Medical Center.

Ritchie Calder, British science writer, professor of international relations at the University of Edinburgh and MEDICAL WORLD NEWS contributing editor, awarded the $2,800 Kalinga Prize for the Popularization of Science.

Dr. Harold F. Schuknecht, associate surgeon and director of the otological laboratory at the Henry Ford Hospital, Detroit, appointed professor of otology and laryngology at Harvard University and chief of otolaryngology at the Massachusetts Eye and Ear Infirmary.

Dr. Wilburt C. Davison, former dean of the Duke University School of Medicine, assistant dean of the Johns Hopkins Medical School, consultant to the office of the Surgeon General and author of the *Compleat Pediatrician,* elected a trustee of the Duke Endowment, the nation's third largest philanthropic organization.



OBITUARIES

Dr. Joseph T. O'Neill, 69, Ottawa, Ill., pediatrician, past president of the Illinois State Medical Society and member of the House of Delegates of the AMA; Feb. 22, in Ottawa.

Dr. Johannes H. Bauer, 71, pioneer in yellow fever vaccine development; he was in charge of the Rockefeller Foundation International Health Division laboratories; a native of Sweden, he became a U.S. citizen in 1937 and headed the American Red Cross mission that opened the Buchenwald, Germany, concentration camp after World War II; of a heart attack; March 4, in Baltimore, Md.

Dr. Irving Hyman, 52, neurology department chairman at the University of Buffalo Medical School and chief of neurology at Buffalo General Hospital; March 7, in Buffalo, N. Y.

Lord Stopford of Fallowfield, 72, famed British anatomist; professor of anatomy and former dean of the University of Manchester (England) Medical School; March 6, in Westmoreland, England.

Dr. Joseph C. Turner, 51, professor of medicine at the College of Physicians and Surgeons, Columbia University, and attending physician in medicine at Presbyterian Hospital, N. Y.; a specialist in hematology, he was engaged in research on the biochemistry of red cell membranes; March 7, in New York City.

Product News

NEW CANCER DRUG

Velban (Lilly), the sulfate salt of vinblastine, an alkaloid of the periwinkle plant, is available for treatment of Hodgkin's disease and choriocarcinoma. It is indicated in generalized Hodgkin's disease in cases in which local surgery or radiation therapy are unsuitable. At the present time, its use in choriocarcinoma should be reserved until other treatment has failed.

There is no evidence to date that *Velban* cures any human cancer, but significant improvement has been reported in Hodgkin's disease and choriocarcinoma patients treated with the drug.

Velban severely depresses white-blood-cell count and, therefore, should not be given to patients whose wbc is less than 4,000/cu mm, or patients with bacterial infections. Side reactions are similar to those of other potent anti-cancer drugs, and include nausea, vomiting and epiliation. Dosage must be individualized. Initial dose should be low—0.1 to 0.5 mg/kg—and thereafter, daily white-cell counts made to determine patients' sensitivity to the drug. *Velban* is administered intravenously and supplied in sterile ampoules containing 10 mg vinblastine sulfate in the form of a lyophilized plug.

TO RELIEVE PAIN

Buffadyne with Barbiturates (Lemmon) for relief of headache, muscular aches and pains, dysmenorrhea, arthralgia and myalgia, contains acetylsalicylic acid, acetophenetidin, caffeine, secobarbital sodium and amobarbital, and is buffered with aluminum and magnesium hydroxides.

Dosage is one or two tablets three or four times daily. It should not be used by patients with an allergic reaction to one of the ingredients or a history of barbiturate addiction.

BOOKLETS

Squibb Product Reference for 1961, a 269-page book covered in heavy red paper, provides a handy guide to every Squibb product. Two indexes in the front of the book list products by generic name and pharmacologic indication. All items are carefully cross-indexed. Descriptions of prescription products conform to package inserts filed with the Food and Drug Administration, and contain complete information on dosage, administration, indications, contraindications, cautions and restrictions. Products are listed by trade name.

Supplements on new products and significant revisions of existing products will be issued from time to time. These can be filed in the pocket in the back of the book. A full revision will be issued annually. The book can be obtained from Squibb Professional Service Dept., 745 Fifth Ave., New York 22, N. Y.

Letters to the Editor

Capital Reader

Please change my address to:
The White House
1600 Pennsylvania Avenue
Washington, D. C.

JANET G. TRAVELL, M.D.
Washington, D. C.

Single Sailor's Return

There was so much interest in my solo transatlantic race to New York last summer (MWN, Aug. 26, 1960, "Doctor Logs a Long and Lonely Voyage") that I thought you might like to know how the return crossing went.

The return, too, was an adventure, and also a race; this time against the storms of autumn. The voyage back, however, was "downhill," as the prevailing winds and currents were favorable.

For the first 1,100 miles, as far as St. Johns, Newfoundland, Miss Fiona Grant accompanied me. Sailing up the Gulf Stream was delightful after the humidity of New York.

As we approached the Grand Banks we felt the first icy breath of winter, and the Aurora glowed overhead at night

whenever the fog lifted. Fiona regretfully had to leave here, to fly back to London.

Believing that anyone who could stand me at sea for ten days could bear anything, I asked her to marry me. It was a wonderful surprise when she accepted me, and I am delighted to be able to tell you that she is still of the same mind!

When I set out alone on the fifth of September, I was desperately lonely; the 2,000-ton ships of the Portuguese fishing fleet were seeking shelter from hurricane Donna, but I dared not linger.

Three days out, the first gale struck, leaving me drained of energy but more confident and in tune with the sea once more. But next day I hove-to in a second gale and wrote in my log: "Depressed . . . anxious as to how much stronger it can blow . . . seas bursting over ship."

After 12 hours I could hoist sail again, but only one day later a heavy gale, with winds consistently recorded at 58 miles per hour, tested the ship and myself to the utmost.

The canvas dodger 'round the cockpit was torn away, sheets broke, the pump blocked, all lights fused and the engine became so corroded that it never worked again. We were leaking.

In a few days there was a sunny day, with weather calm enough to partly dry my clothes and blankets.

"At night," I wrote in my log, "whenever it is clear, the northern lights illumine half the sky with their cold, greenish fire, so remote and unearthly. Yet I feel as one with the desolate scene, with the storms and long nights and Aurora, and I am not lonely."

There were three more gales, and then four days of contrary winds and 23 hours of complete calm before I reached Lerwick, Shetland Islands, 26 days out from Newfoundland.

What of the medical log book results? These are still being analysed at the Medical Research Council. Continuous graphs of sleeping and waking for instance, are being plotted on toilet paper.

In one racer's log under the question "Do you feel sexy?" was the reply: "Not bloody likely." We all had emotional periods and some of us were in tears at times. One person was hardly ever frightened (this was not me).

The next race is in 1964.

DAVID LEWIS, M.D.
East Ham, London
England

Pollen for Prostatitis

Could you give me any more information in regard to the Swedish doctor, Gosta Jonsson, and the use of pollen spores for the treatment of chronic prostatitis? (MWN, Feb. 3, *Late News*).

B. R. HUNTER, M.D.
Westville, Okla.

[Cernitin *is a product of A. B. Cernelle, Vegeholm, Sweden. The American agent: Poll-N-Co., Inc., 340 East Horatio Ave., Maitland, Fla.*—ED.]

X Marks the Radiologist

I am somewhat surprised at your use of words in titling a lead article "Changing Patterns of X-ray Practice" (MWN, Jan. 6). Your article has nothing to do with x-ray practice, but with the use of x-ray therapy by dermatologists. Most therapeutic radiologists never have been in accord with the type of x-ray therapy used by most dermatologists.

JOHN E. MARTIN, M.D.
Houston, Tex.

Newborn Meningeal Hernias

I was greatly disappointed to note that you had quoted me (MWN, Mar. 3, *Late News*) as saying that we saw two meningomyeloceles a year. I would certainly never attempt to pontificate on such a small experience.

Our case load is two per *week* at a minimum.

C. EVERETT KOOP, M.D.
The Children's Hospital of Philadelphia, Philadelphia, Pa.

Errare 'Humanis' Est

May I point out an error in your *Late News* (MWN, Feb. 3), in stating "hypoparathyroidism" instead of "hyperparathyroidism." *Errare humanis est.*

In general, your magazine is excellent and very readable.

SYDNEY M. SIMON, M.D.
Bronx, N. Y.

[*Dr. Simon and nine other readers are, of course, right. In fact,* errare humanum est, *indeed!*—ED.]

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THE POLIO CAULDRON BOILS OVER AGAIN!

Morris Fishbein, M.D.

After some 50 years of active observation of the medical scene in the United States my recollections cover a great variety of hassles and squabbles. But for continuity of eruption, explosion and boiling over, I doubt that any of them can equal the many situations related to poliomyelitis. The controversies regarding etiology, prevention and treatment have been numerous. One remembers Brody's vaccine, Sister Kenny, the introduction of the Salk vaccine and the issue of live-attenuated vs killed virus vaccines as conspicuous examples.

Whenever the pot has simmered down some cook has turned up the heat and it has boiled over again.

Recently, an unnamed assistant in the kitchen called "M.D., Wisconsin," wrote a letter to the *Journal of the American Medical Association* questioning the efficacy of the Salk vaccine. Assigned to answer the correspondent was Dr. Herbert Ratner, health commissioner of Oak Park, Ill., and long-time critic of the Salk vaccine. His answer included the statement: "It is now generally recognized that much of the Salk vaccine used in the United States has been worthless."

John Troan, science writer for the Scripps-Howard syndicate, picked up the item and wrote a full-blown story for his papers. To quote a trite phrase "the fat was now in the fire," and the pot was really boiling over.

Dr. John H. Talbott, the editor of *JAMA*, was quoted as saying that Dr. Ratner "is a qualified health officer whose opinion must carry weight." And Dr. Wayne G. Brandstadt, assistant editor who selected Dr. Ratner to answer the question, reportedly was "a little inclined to agree with him."

The Scripps-Howard story produced instant response from many quarters. Dr. F. J. L. Blasingame, executive vice-president of the AMA, said that the article presented "a highly distorted and inaccurate picture" and that Dr. Ratner's letter "was his own opinion and not the opinion of the American Medical Association," which only last June passed a resolution favoring Salk vaccinations.

Dr. Salk issued a statement saying that "it is not a failure of the vaccine, but a failure to use the vaccine that exposes people to polio." Basil O'Connor, president of The National Foundation, declared that the usefulness of the Salk vaccine has been proved "beyond any possible doubt—reasonable or unreasonable." And Dr. Alexander D. Langmuir, epidemiologist of the U. S. Public Health Service, maintained that "the record very clearly shows . . . that four doses of the vaccine on an average decrease by at least 90 per cent a person's chance of being crippled by polio."

Following the introduction of the Salk vaccine at Ann Arbor, Mich., in 1955, with the massive epidemiologic evidence reported by Professor Thomas Francis, I attended a conference in Chicago of various health and medical groups, called by the late Dr. Herman Bundesen, then health commissioner of the city. Among those present was Dr. Ratner. To this group I presented the evidence brought forth at Ann Arbor.

On that occasion, Dr. Ratner said that the vaccine was hazardous and worthless. And he has been conducting a persistent campaign against its use ever since that time. This, in spite of the fact that vaccines like the Salk vaccine have been widely supported and used throughout the world.

I venture an informed guess that continous pressure exerted by Dr. Ratner and others induced Dr. Brandstadt to publish the letter of "M.D., Wisconsin" and Dr. Ratner's answer. Now, it is reported that Rep. Kenneth A. Roberts (D-Ala.) is "investigating the entire matter."

God help us all!

Morris Fishbein